

Abstract

A method of producing carbon single wall nanotubes (SWNT) by CVD is disclosed.

The SWNTs are grown on a metal-catalyzed support surface, such as a commercially
5 available silicon tips for atomic force microscopes (AFM). The growth characteristics of
the SWNTs can be controlled by adjusting the density of the catalyst and the CVD
growth conditions. The length of the SWNTs can be adjusted through pulsed electrical
etching. Nanotubes of this type can find applications in nanotubes structures with
defined patterns and for nano-tweezers. Nano-tweezers may be useful for manipulating
10 matter, such as biological material, on a molecular level.